

Claims

What is claimed is:

1. A method for universal programming language conversion between two different sequential programming languages including a source program in a first programming language and a target program in a second programming language, the method comprising the steps of:
 - 5 parsing the source program in the first programming language using a parsing interface specific to the first programming language;
 - 10 stripping all syntax from the parsed source program;
 - 15 receiving as input the parsed source program without any syntax;
 instantiating classes in a framework for capturing semantics of the parsed source program independent of syntax and execution model of the sequential programming languages;
 - 20 producing a semantic representation of the parsed source program without any syntax; and
 receiving the semantic representation at a printer interface specific to the second programming language and adding the syntax of the target program in the second programming language.
- 25 2. The method in accordance with claim 1, wherein the source program is a high level programming language and the target program is a high level programming language.
- 30 3. The method in accordance with claim 1, wherein the source program is a high level programming language and the target program is a low level programming language.
- 35 4. The method in accordance with claim 1, wherein the classes are C++ classes representing fundamental core constructs of all sequential programming languages.
- 40 5. An apparatus for universal programming language conversion between two different sequential programming languages including a source program in a first programming language and a target program in a second programming language, comprising:

a parsing interface specific to the first programming language for parsing the source program in the first programming language and stripping all syntax from the parsed source program;

- 5 a framework including instantiable classes for capturing a semantic representation of the parsed source program independent of syntax and execution model of the sequential programming languages; and
- 10 a printer interface specific to the second programming language for receiving the semantic representation and adding the syntax of the target program in the second programming language.

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- 15 6. The apparatus in accordance with claim 5, wherein the source program is a high level programming language and the target program is a high level programming language.
- 7. The apparatus in accordance with claim 5, wherein the source program is a high level
- 20 9. An apparatus for universal programming language conversion between two different sequential programming languages including a source program in a first programming language and a target program in a second programming language, comprising:
 - 25 a processor for instantiating classes in a framework representing a unification of semantics of the sequential programming languages independent of syntax and execution model.
- 10. The apparatus in accordance with claim 9, wherein the sequential programming languages are sequential procedural and sequential object oriented programming languages.